

**PENDING CLAIMS**

1. (Currently amended) A system for providing differentiated classes of storage, comprising
  - a storage device having a plurality of storage locations and a logical block name space for organizing logical block names of the storage locations,
  - a performance process for determining a level of performance for the plurality of storage locations and partitioning the plurality of storage locations into a plurality of regions as determined by their different levels of performance, and
  - a mapping process for mapping the partitioned regions of the storage locations and aggregating the logical block names of the storage locations in the partitioned regions having an identical level of performance to a selected section of the logical block name space, thereby providing differentiated classes of storage to one or more clients accessing the system.
2. (Previously presented) A system according to claim 1, wherein:
  - the performance process separates the plurality of storage locations into a plurality of categories as determined by their different levels of performance.
3. (Previously presented) A system according to claim 2, wherein the different levels of performance represent different RAID levels of performance.
4. (Previously presented) A system according to claim 1, wherein the aggregated logical block names correspond to a common RAID level.

Claims 5-7. (Canceled)

8. (Original) A system according to claim 1, further comprising:
  - a process for employing the storage to provide a file system service.
9. (Original) A system according to claim 1, further comprising:

A process for providing a storage volume service.

10. (Previously presented) A system according to claim 9, wherein the mapping process creates multiple storage volumes at a selected level of performance.
11. (Currently amended) A process for providing differentiated classes of storage, comprising the steps of
  - providing a storage device having a plurality of storage locations and a logical block name space for organizing logical block names of the storage locations,
  - determining a level of performance for the plurality of storage locations,
  - partitioning the plurality of storage locations into a plurality of regions as determined by their different levels of performance,
  - mapping partitioned regions of the storage locations, and
  - aggregating the logical block names of the storage locations in the partitioned regions having an identical level of performance to a selected section of the logical block name space, thereby providing differentiated classes of storage to one or more clients accessing the system.
12. (Previously presented) A process according to claim 11, further including the step of separating the plurality of storage locations into a plurality of categories as determined by their different levels of performance.
13. (Currently amended) A process according to claim 12, wherein the different levels of performance represent different RAID levels of performance.
14. (Previously presented) A process according to claim 11, wherein the aggregated logical block names correspond to a common RAID level.

Claims 15 – 17. (Canceled)

18. (Original) A process according to claim 11, wherein mapping creates multiple storage volumes at a selected level of performance.
19. (Currently amended) A system for providing differentiated classes of storage, comprising
  - a storage device having a plurality of storage locations, a logical block name space for organizing logical block names of the storage locations, and performance parameters of the storage locations that vary across the storage device, and
  - a partitioning process for partitioning the storage locations into regions and aggregating the logical block names of the storage locations in the partitioned regions having an identical level or performance to a selected section of the logical block name space, thereby providing differentiated classes of storage to one or more clients accessing the system.
20. (Previously presented) A system according to claim 19, wherein the partitioning process selects a fixed set of partitions as a function of a selected configuration of system components.
21. (Canceled)
22. (Previously presented) The system of claim 1, wherein a level of performance includes a data access time, or a reliability of a storage location, or a combination thereof.
23. (Previously presented) The system of claim 1, wherein the storage device is a single storage disk.
24. (Previously presented) The system of claim 1, wherein the mapping process performs mapping and aggregating when the storage system is designed.
25. (Previously presented) The system of claim 1, wherein the mapping process performs mapping and aggregating during operation of the storage device.

26. (Previously presented) The system of claim 1, further comprising a performance measurement system for scanning storage locations of the storage device and determine the level of performance for the storage locations.
27. (Previously presented) The system of claim 26, wherein the performance measurement system performs experimental read and write operations and determines the level of performance from experimental data collected in the read and write operations.
28. (Previously presented) The system of claim 11, wherein a performance level includes a data access time, or a reliability of a storage location, or a combination thereof.
29. (Previously presented) The system of claim 11, wherein partitioning comprises performing experimental read and write operations and determining the level of performance from experimental data collected in the read and write operations.
30. (Previously presented) The system of claim 11, wherein mapping and aggregating are performed when the storage system is designed.
31. (Previously presented) The system of claim 11, wherein mapping and aggregating are performed during the operation of the storage system.